

REMARKS

Status of the Application

Claims 2, 4-10 and 12-17 are withdrawn from further consideration by the Examiner. Claims 1, 3, and 11 are rejected both under 35 U.S.C. 102 and under 35 USC 112, second paragraph. The specification and the abstract are objected for informalities.

Applicant has amended claim 1 and added new claim 19. The specification and the abstract are also amended. No new matter adds through the amendments. For the reasons discussed below, withdrawal of the rejections is requested.

Claim Withdrawal

Claims 2, 4-10 and 12-17 are withdrawn by the Examiner.

Applicant respectfully disagrees. It is believed that claim 5 reads on the elected species (See Fig. 1(a)). Therefore, reinstatement of claim 5 is requested.

Information Disclosure Statement (IDS)

Applicant herewith filed an IDS to submit the two references listed on pages 2-5.

Specification Objection

Applicant has amended the specification to clearly define the acronym, BJ, as "Ball Fixed and Joint".

The Office Action further indicated that the detailed description of the elected species fails to provide proper antecedent basis for the subject matter in claim 1, line 11⁺. Applicant respectfully disagrees. The subject matter in claim 1, line 11⁺ is described on page 6, second paragraph.

Abstract

Abstract has been amended to cure the informalities.

Claim Objections

The claims are objected to because elements of the claims are not separated by line indentation.

Applicant has amended the claims to separate element by line indentation.

Claim Rejections – 35 USC 112

Claims 1, 3, and 11 are rejected under 35 USC 112, second paragraph. The Office Action indicated that claim 1 does not specify to what element “the region” is a region of, to what element “the axial center” is the axial center of.

Applicant believes that the above terms are well defined in claim 1. Support for these terms can be found on page 15, the last paragraph.

Withdrawal of the rejection is requested.

Claim Rejections – 35 USC 102

Claims 1 and 3 are rejected under 35 USC 102(b) as being anticipated by DE 100 60 220.

Claims 1, 3, and 11 are rejected under 35 USC 102(b) as being anticipated by Jacob (US 4,950,206) or Weckerling (US 2002/0094230), respectively.

Applicant has amended claim 1 to specify that *“a center of curvature of the track grooves in the joint outer ring and a center of curvature of the track grooves in the joint inner ring are axially offset by the same distance with respect to an joint center, the track groove in the joint*

outer ring has an arcuate bottom in a mouth innermost side, and a straight bottom on a mouth opening side, the track groove in the joint inner ring has an arcuate bottom on the mouth opening side, and a straight bottom on the mouth innermost side".

Support for the above amendment can be found page 14, lines 10-27 of the specification.

None of the cited references teaches or suggests these features.

The cited references disclose that the center of curvature of the track grooves in the joint outer ring is located on the interior side of the joint center, and the center of curvature of the track grooves in the joint inner ring is located on exterior side of the joint center. As a result, the cited references disclose that the track groove in the joint outer ring has an arcuate bottom in the mouth opening side of the mouth of the joint outer ring, and a straight bottom on the innermost side of the mouth, and that the track groove in the joint inner ring has an arcuate bottom on the innermost side, and a straight bottom on the mouth opening side.

While the present invention as defined in the amended claim 1 requires that the track groove in the joint outer ring has an arcuate bottom in the innermost side of the mouth, and a straight bottom on the mouth opening side (an intermediate shaft 8 side).

The present invention as defined in the new claim 19 also requires that the center of curvature of the track grooves in the joint outer ring is located on the exterior side of the joint center, and the center of curvature of the track grooves in the joint inner ring is located on interior side of the joint center. That is, the position of the center of curvature of the track grooves is opposite in the cited references and the present invention.

The above discussed differences are technically significant. The constant velocity joints of the cited references have a small operation angle between the outer joint ring and the shaft. While the present invention has a large operation angle between the outer joint ring and the shaft.

New Claims

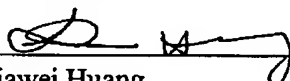
New claim 19 has been added.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the remaining claims are now in condition for allowance. Allowance of this application is earnestly solicited.

Respectfully submitted,
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